CLAIMS

1. Use of one or more of the elements from the group yttrium (Y), neodymium (Nd) or zirconium (Zr) for the production of a pharmaceutical formulation for inhibiting the proliferation of human smooth muscle cells.

2. Use of the pharmaceutical formulation as set forth in claim 1 for inhibition of the proliferation of human smooth muscle cells in the region of sclerotic, in particular atherosclerotic lesions.

3. Use as set forth in claim 1 or claim 2 for local restenosis prophylaxis after stent implantation.

4. A pharmaceutical formulation containing one or more of the elements from the group yttrium (Y), neodymium (Nd) or zirconium (Zr).

5. A formulation as set forth in claim 4 characterised in that the formulation is adapted for intravascular liberation after implantation in a vascular vessel.

6. A formulation as set forth in claim 4 or claim 5 characterised in that the formulation includes an at least very substantially biodegradable carrier.

7. A formulation as set forth in claim 6 characterised in that the carrier is an alloy, in particular magnesium, iron or tungsten alloy.

8. A formulation as set forth in claim 6 characterised in that the carrier is a bioresorbable polymer and one or more of the elements from the group Y, Nd or Zr is embedded in the form of powders or microparticles in the polymer.

9. A formulation as set forth in one of claims 4 through 8 characterised in that the formulation contains Y in a quantitative proportion of between 0.1 and 10% by weight with respect to the total weight of the formulation.

10. A formulation as set forth in one of claims 4 through 9 characterised in that the formulation contains Nd in a quantitative proportion of between 0.1 and 5% by weight with respect to the total weight of the formulation.

11. A formulation as set forth in one of claims 4 through 10 characterised in that the formulation contains Zr in a quantitative proportion of between 0.1 and 3% by weight with respect to the total weight of the formulation.

12. A formulation as set forth in claim 7 characterised in that the formulation is a magnesium alloy and contains Y in the range of between 3.7 and 5.5%, rare earths without Y in the range of between 1.5 and 4.4% by weight and remaining elements < 1%.

13. A formulation as set forth in claim 7 characterised in that the formulation is a magnesium alloy and contains Y in the range of between 3.7 and 5.5% by weight, Nd in the range of between 1.8 and 2.7% by weight, and Zr in the range of between 0.2 and 1.2% by weight.

14. A formulation as set forth in claim 13 characterised in that the magnesium alloy is WE43 (W25/EP5M).

15. A formulation as set forth in one of claims 4 through 14 characterised in that the formulation contains Y and is so adapted that there is an yttrium concentration in the region of the human smooth muscle cells to be treated of between 200 μM and 2 mM, in particular between 800 μM and 1 mM.

16. A formulation as set forth in one of claims 4 through 15 characterised in that the formulation contains Nd and is so adapted that there is a neodymium concentration in the region of the smooth muscle cells to be treated of between 600 μM and 2 mM, in particular between 800 μM and 1 mM.

17. A formulation as set forth in one of claims 4 through 16 characterised in that the formulation contains Zr and is so adapted that there is a zirconium concentration in the region of the smooth muscle cells to be treated of between 200 μM and 2 mM, in particular between 200 μM and 1 mM.

18. A formulation as set forth in one of claims 4 through 14 characterised in that the formulation contains Y, Nd and Zr and is so adapted that there is an yttrium concentration of between 350 and 550 μM, a neodymium concentration of between 100 and 200 μM and a zirconium concentration of between 10 and 30 μM in the region of the smooth muscle cells to be treated.

19. An implant with a coating or a constituent of a formulation as set forth in one of claims 4 through 18.

20. An implant as set forth in claim 19 characterised in that the implant is an endovascular support device, in particular a stent.

21. An implant as set forth in claim 20 characterised in that there are between about 5 and 30 μg of yttrium, in particular between 10 and 20 μg of yttrium, in relation to 1 mm stent length.

22. An implant as set forth in claim 20 characterised in that there are between about 2 and 20 μg of neodymium, in particular between 3 and 10 μg of neodymium, in relation to 1 mm stent length.

23. An implant as set forth in claim 20 characterised in that there are between about 0.05 and 10 μg of zirconium, in particular between 0.5 and 6μg of zirconium, in relation to 1 mm stent length.

24. An alloy containing one or more elements from the group yttrium (Y), neodymium (Nd) or zirconium (Zr) as therapeutic agent.

25. Yttrium (Y), neodymium (Nd) or zirconium (Zr) as therapeutic agent.